

Title (en)
ADAPTIVE SUB-BAND FILTERING

Title (de)
ADAPTIVE TEILBANDFILTRIERUNG

Title (fr)
FILTRAGE ADAPTATIF A SOUS-BANDES

Publication
EP 0824798 A1 19980225 (FR)

Application
EP 96919852 A 19960502

Priority
• FR 9600664 W 19960502
• FR 9505410 A 19950505

Abstract (en)
[origin: WO9635266A1] A digital signal adaptive filtering method and device are described. The transmitted signal (xn), which is representative of a post-transmission distorted source signal (dn), is adaptively filtered (W^*) (1001) to generate a filtered transmitted digital signal (yn). An error signal (en) is formed (1002), which is representative of the algebraic difference between the source signal (dn) and the filtered transmitted digital signal (yn), and which is subdivided (1003), through an orthogonal breaking-up step resulting in a number (N) of frequency sub-bands, into sub-band error signals (ei,n), i ELEMENT [0,N-1]. Each sub-band error signal is sub-sampled in a ratio of (N) and the sub-sampled sub-band error signals (eik) are weighted (1004) with coefficients (λ_i). The transmitted digital signal (xn) is subdivided (1005) into (N) sub-bands (xi,n) and an adaptation function (ΔW^*) of the adaptive filter is established (1007) as the sum of the product of each conjugated sub-band component of the transmitted digital signal and the sub-sampled weighted sub-band error signal, to which an adaptive pitch (μ) has been allocated. The invention is useful for speech signal echo equalising and cancelling.

IPC 1-7
H04B 3/21; H03H 21/00

IPC 8 full level
H03H 21/00 (2006.01); **H04B 3/21** (2006.01)

CPC (source: EP)
H03H 21/0027 (2013.01); **H04B 3/21** (2013.01)

Citation (search report)
See references of WO 9635266A1

Designated contracting state (EPC)
DE GB IT

DOCDB simple family (publication)
WO 9635266 A1 19961107; DE 69602838 D1 19990715; DE 69602838 T2 19991223; EP 0824798 A1 19980225; EP 0824798 B1 19990609; FR 2733866 A1 19961108; FR 2733866 B1 19970718

DOCDB simple family (application)
FR 9600664 W 19960502; DE 69602838 T 19960502; EP 96919852 A 19960502; FR 9505410 A 19950505